

**Result:** We present a case of small intestine obstruction, volvulus and necrosis due to an impacted tapeworm and finally leading to bowel perforation. The diagnosis of this rare condition is frequently confirmed by operation.

**PP-204 Reemerging of Mediterranean visceral leishmaniasis (MVL) in North of Iran: molecular and serological evidences**

M. Fakhar<sup>1\*</sup>, B. Rahmati<sup>1</sup>, S. Gohardehi<sup>1</sup>, S. Ali Mahdavi<sup>2</sup>, M. Mohebbati<sup>3</sup>, B. Akhoondi<sup>3</sup>. <sup>1</sup>Department of Parasitology and Mycology, School of Medicine, Mazandaran University of Medical Sciences, Sari, Iran, <sup>2</sup>Provincial Communicable Diseases Unit, Mazandaran Health Center, Mazandaran University of Medical Sciences, Sari, Iran, <sup>3</sup>Department of Parasitology and Mycology, School of Medicine, Tehran University of Medical Sciences, Tehran, Iran

**Background:** Over the last decade, the incidence of Mediterranean visceral leishmaniasis (MVL) has increased in many districts of the province of Mazandaran, in northern Iran, where the first human case of MVL was reported in 1949. This study aimed to determine prevalence of human and canine visceral leishmaniasis for the first time in the province.

**Methods:** Between 2009 and 2010, blood samples were collected from 401 apparently healthy subjects from communities and forty-nine domestic dogs, in the central zone of Mazandaran Province (including Semeskandeh and Kiakola districts), where new human VL case had emerged. Each of these samples was tested for anti-*Leishmania* antibodies, in direct agglutination tests (DAT), and for *L. infantum* kinetoplast DNA on whole blood, in PCR-based assays.

**Results:** Of the 401 human samples from studied area, eight (2%) were found seropositive at 1:1600 titer and none was found PCR-positive. Of the 49 dog samples, 17 (34.7%) showed anti-*Leishmania* antibodies with titers 1:80 and 2 (4.1%) were PCR-positive. All PCR-positive dogs were not seropositive. In addition, all PCR-positive dogs had clinical signs while all human cases were asymptomatic subjects.

**Conclusion:** Our preliminary study showed that asymptomatic human carriers of *L. infantum* are quite common in the study areas. Moreover; the results correspond to the evidences of reemerging or emerging MVL in this non-endemic area in which the first human case of visceral leishmaniasis had been reported in Iran. Thus, further investigations regarding sandflies fauna and animal reservoirs are required in this province.

**PP-205 Haemophagocytic syndrome (HPS) associated with Mediterranean visceral leishmaniasis (MVL)**

M. Fakhar<sup>1,2\*</sup>, Q. Asgari<sup>3</sup>, M. Hossein Motazedian<sup>3</sup>, P.V. Kumar<sup>4</sup>. <sup>1</sup>Department of Parasitology and Mycology, School of Medicine, Mazandaran University of Medical Sciences, Sari, Iran, <sup>2</sup>Molecular and Cellular Biology Research Center, Mazandaran University of Medical Sciences, <sup>3</sup>Department of Parasitology and Mycology, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran, <sup>4</sup>Department of Pathology, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran

We report a case of haemophagocytic syndrome (HPS) associated with acute Mediterranean visceral leishmaniasis (MVL) from Fars Province, in southern Iran, where MVL is endemic. The patient, a 4-month-old girl, was referred to hospital with abdominal pain high-grade fever and splenomegaly. Hematological findings revealed severe anemia, and pancytopenia. A trephine biopsy revealed a hypercellular marrow with few amastigotes as well as many macrophages contains lymphocytes, RBC and amastigotes.

Anti-*Leishmania* antibodies was shown to be present at titers 1:64 and 1:1600 by IFA and DAT respectively. Moreover, by specific polymerase chain reaction (PCR) on peripheral blood and urine, a 145bp band corresponding to kDNA from the genus *Leishmania* was detected and the species was identified as *L. infantum* using nested-PCR. This is first report of MVL/HPS from Iran which the species was characterized by PCR. The patient was treated successfully with two courses of liposomal amphotericin B plus corticosteroid.

**PP-206 Mosquitocidal and antifecundity effects of coumarin and betulinic acid isolated from *Cassia siamea* (Fabaceae) stem bark chloroform extract on female *Anopheles stephensi* (Diptera: Culicidae)**

G.F. Nsonde Ntande<sup>1\*</sup>, A.A. Abena<sup>1</sup>, A. Hablutzel<sup>3</sup>, J.T. Banzouzi<sup>4</sup>, M. Ndounga<sup>2</sup>, F. Esposito<sup>3</sup>, J.M. Ouamba<sup>5</sup>, L. LucaToni<sup>3</sup>. <sup>1</sup>Laboratoire de biochimie et pharmacologie, Faculté des sciences de la santé, Université Marien-Ngouabi, 69, Brazzaville, Congo, <sup>2</sup>Centre d'étude des ressources végétales (CERVE), Brazzaville, Congo, <sup>3</sup>Scuola di Scienze del Farmaco e dei Prodotti della Salute, Università di Camerino, 62032 Camerino (MC), Italy, <sup>4</sup>Institut de Chimie des Substances Naturelles (ICSN-CNRS), Gif-sur-Yvette Cedex, France, <sup>5</sup>Unité de chimie du végétal et de la vie, Faculté des sciences, Université Marien-Ngouabi, 69, Brazzaville, Congo

Prevalence of malaria mortality and morbidity caused by resistance of *Plasmodium* and *Anopheles* needs the development of new tools to fight malaria.

In order to develop new tools to fight against malaria, the bark of *Cassia siamea* was subjected to phytochemical investigation, which led to the isolation of coumarin and betulinic acid. We conducted a chronic administration in the form of food from the chloroform extract of the coumarin and betulinic acid at the concentrations of 2000, 800 and 1600ppm respectively, once every two days, for 21 days corresponding to the sporogonic cycle.

The results have shown an efficiency of 100% mortality in the group of mosquitoes treated by coumarin on day 15, an efficiency of 90% mortality in the group of mosquitoes treated with betulinic acid at day 20, finally efficiency 71% mortality in the group of mosquitoes treated with the chloroform extract. The sporogonic cycle duration, was evaluated at 21 days. Coumarin and betulinic acid have reduced the fecundity of females' mosquitoes half.

Coumarin and betulinic acid are mosquitocidal and antifecundity properties.

**PP-207 International present situation of scientific productions of Iranian's researchers in parasitology domain**

M. Soosaraei<sup>1,2\*</sup>, A. Akbar Khasseh<sup>3</sup>, M. Fakhar<sup>2,4</sup>. <sup>1</sup>Social Tamin Organization, Golestan Branch, Golestan Province, Iran, <sup>2</sup>Department of Parasitology and Mycology, School of Medicine, Mazandaran University of Medical Sciences, Sari, Iran, <sup>3</sup>Payame Noor University, Rasht Branch, Gilan Province, Iran, <sup>4</sup>Molecular and Cellular Biology Research Center, Mazandaran University of Medical Sciences, Iran

**Background:** In the present decade, the term 'scientific production' was considered as one of the important topic. The aim of this study was to investigate international present situation of scientific productions of Iranian's researchers in parasitology field.

**Methods:** This scientometric study was conducted using bibliographic records from the ISI databases restricted to

a periodic domain during 1980–2009 regarding scientific productions of Iran in parasitology domain.

**Results:** Of 72,229 articles written by Iranian authors during 1980–2009, a total of 392 articles (0.54%) were in the domain of parasitology. Some of these articles are due to collaborative works and some of them are non-collaborative ones. Iranian authors of parasitology have many collaborative articles with their counterparts in United Kingdom (UK). Moreover, "Mohebbi" with 26 articles was the most productive scientists of parasitology, as well as Tehran University of Medical Science with 114 records (29.08%) was the most productive institution in the field of parasitology.

**Conclusion:** Our results indicated that the scientific productions trend including research and write down in the domain of parasitology have considerable been increased in 2008. As a whole, the Journal entitled "Parasitology Research" published the 65 citations of all parasitology articles corresponding Iranian researchers.

**PP-208 Vascular endothelial growth factor (VEGF) and lactate dehydrogenase (LDH) in the pleural effusions caused by different etiology**

C.R. Zhang<sup>1</sup>\*, W.M. Xu<sup>1</sup>, H. Zhou<sup>1</sup>, M. Li<sup>1</sup>, J.C. Lin<sup>1</sup>. <sup>1</sup>Huang Pu Hospital of the First Affiliated Hospital, Sun Yat-sen University, China

**Objective:** To explore the clinical validity of vascular endothelial growth factor (VEGF) in the pleural effusions caused by different etiology.

**Methods:** VEGF in the pleural effusions caused by different etiology were measured by ELISA. LDH measurements were performed on a selective, discrete, multichannel analyzer using standard methodology.

**Results:**

1. VEGF levels in the pleural effusions were  $240.29 \pm 11.52$ ,  $217.72 \pm 49.51$ ,  $68.03 \pm 50.70$  pg/ml in the patients with parapneumonic effusions (PPE), tuberculosis effusions (TBE) and transudative pleural effusions (TE), respectively. There were significant higher VEGF in the patients with PPE, TBE than TE ( $P < 0.05$ ). But, no significantly difference between the patients with PPE and TBE.
2. LDH levels in the sera were  $156.75 \pm 35.26$ ,  $142.94 \pm 42.17$ ,  $128.57 \pm 81.38$  U/L with PPE, TBE and TE, respectively. No significant difference among them ( $p < 0.05$ ).
3. LDH levels in the pleural effusions were  $1135.25 \pm 747.85$ ,  $328.5 \pm 178.89$ ,  $126.29 \pm 60.16$  U/L with PPE, TBE and TE, respectively, there were significant difference between PPE, TBE and TE ( $P < 0.05$ ), and significant difference between PPE and TBE ( $P < 0.05$ ). The ratio of LDH in the pleural effusion and serum significantly difference between PPE and TBE ( $P < 0.05$ ), but no difference in TE.

**Conclusion:** The detection of VEGF and LDH has diagnostic values in differentiating exudative and transudative pleural effusions, and PPE has more serious infection response than TBE.

**PP-209 In vitro efficacy of ceftriaxone and cefixime against respiratory pathogens**

F. Kaleem<sup>1</sup>\*, J. Usman<sup>1</sup>, A. Hassan<sup>1</sup>. <sup>1</sup>National University of Sciences and Technology, AMC, Pakistan

**Background:** Respiratory tract infections (RTIs) are very common in developing countries particularly in winter months. Major pathogens associated with these infections are *Streptococcus pneumoniae*, *Haemophilus influenzae* and *Moraxella catarrhalis*. As these infections are a major

cause of morbidity and mortality proper knowledge of antimicrobial sensitivity pattern should be known to the physician so as to prescribe correct empirical therapy.

**Aims and Objectives:** The objective of this study was to find out the in vitro activity of ceftriaxone and cefixime against respiratory pathogens.

**Materials and Methods:** This descriptive cross sectional study was carried out at the Department of Microbiology, Army Medical College, National University of Sciences and Technology, Pakistan. All respiratory samples were dealt with standard microbiological techniques. Isolated organisms were subjected to antimicrobial testing by modified Kirby Bauer disc diffusion technique and were also subjected to the determination of minimum inhibitory concentrations (MIC) of ceftriaxone and cefixime. MIC<sub>50</sub> and MIC<sub>90</sub> were calculated.

**Results:** *Streptococcus pneumoniae* was most frequently isolated followed by *Haemophilus influenzae* and *Moraxella catarrhalis*. All the isolates were uniformly susceptible to both the antibiotics.

**Conclusion:** Ceftriaxone and cefixime both are highly effective against respiratory pathogens, however less cost of cefixime and its oral dosing option can make it a better option for treatment of respiratory infections.

**PP-210 Comparison of minimum inhibitory concentrations of different fluoroquinolones against respiratory pathogens**

F. Kaleem<sup>1</sup>\*, J. Usman<sup>1</sup>, A. Hassan<sup>1</sup>. <sup>1</sup>National University of Sciences and Technology, AMC, Pakistan

**Background:** Significant levels of antibiotic resistance, particularly to those antibiotics used to treat respiratory tract infections (RTIs) have emerged worldwide. Fluoroquinolones are considered very effective against majority of respiratory pathogens. So the objective of this study was to evaluate the in vitro activities of fluoroquinolones against respiratory pathogens.

**Materials and Methods:** This descriptive cross sectional study was carried out at the Department of Microbiology, Army Medical College, National University of Sciences and Technology, Pakistan. All respiratory samples were dealt with standard microbiological techniques. Isolated organisms were subjected to antimicrobial testing by modified Kirby Bauer disc diffusion technique and were also subjected to the determination of minimum inhibitory concentrations (MIC) of ciprofloxacin, moxifloxacin and levofloxacin. MIC<sub>50</sub> and MIC<sub>90</sub> were calculated.

**Results:** *Streptococcus pneumoniae* was most frequently isolated followed by *Haemophilus influenzae* and *Klebsiella pneumoniae*. Majority of the isolates were susceptible to fluoroquinolones. Levofloxacin showed better efficacy against respiratory pathogens.

**Conclusion:** Levofloxacin showed highest in vitro activity among fluoroquinolones against respiratory pathogens. Physicians should have good knowledge of current antimicrobial susceptibility pattern so as to prescribe effective empirical therapy to patients thus reducing morbidity and mortality.

**PP-211 A role for the pneumococcal vaccine during admission for stroke? Observed protective effect against death in the Medicare population**

S. Bussell<sup>1</sup>\*, <sup>1</sup>Johns Hopkins Bloomberg School of Public Health, USA

**Background:** Pneumococcal infections after stroke have high incidence and mortality. In elderly patients, meta-analyses have shown a protective effect of the 23-valent